

SYSTEM AND METHOD FOR OPTIMIZING SIMULATION OF A DISCRETE EVENT PROCESS USING BUSINESS SYSTEM DATA

ABSTRACT OF THE DISCLOSURE

The invention discloses simulation of a process of discrete events or tasks having a plurality of available resources associated therewith is presented. A database stores a plurality of models, each including a plurality of one or more entity, task, and resource parameter, and dependencies and relationships. A model application communicates with the database and is configured to receive commands from a user, to retrieve one of the plurality of models and the corresponding plurality of one or more entity, task, and resource parameter in response to a user command, to receive input data corresponding to attributes of one or more entity, task, and resource parameter from a business database system, and to generate a simulation model based on the selected business database system and the input data. An optimizing application communicates with the model application and is configured to receive commands from a user, to select at least one entity, task, and resource parameter of the simulation model with respect to an objective function, to define bounds of the at least one entity, task, and resource parameter selected, to generate values for the objective function based on the at least one of the entity, task, and resource parameter selected, and to generate financial performance data based on the values generated for the objective function. A server performs a simulation of the process by processing the simulation model and generates an output data file containing output data representative thereof. The objective function comprising a combination of system financial performance measures (e.g., operational margin) and process performance measures (e.g., cycle time, throughput, utilization).